

REMARKS

This Response is in reply to the Office Action mailed on October 6, 2005. Claims 1-3 are pending and claim 1 has been amended herein. No new matter has been added. Entry and consideration of the amendments and following remarks is respectfully requested.

Claims 1-3 stand rejected under 35 U.S.C. §103(a) over Flower et al. (U.S. Patent Pub. No. 2002/0185348) in view of Jankovsky (U.S. Patent No. 4,442,870). The rejection is respectfully traversed.

Briefly, a linear damper according to the present invention comprises a casing and a slider inserted into the casing. The slider moves relative to the casing and has a working portion. A damping groove is provided in one of the casing and the slider having tapering faces formed on the side faces of the damping groove and inclined to taper an inner width of the damping groove in one of a depth direction and an opening direction. A damping portion is provided in the other of the casing and the slider to be fitted in the damping groove with allowance for a sliding movement and having tapering faces facing the tapering faces of the damping groove. A conversion mechanism is provided for producing a force pressing the damping portion in a direction tapering the inner width of the damping groove when a force is applied to the working portion to move the slider in the axis direction.

Claim 1 was amended to include that the damper portion is structured and arranged to be engaged in the damping groove when the damping portion is pressed in a direction of the tapering inner width of the damping groove to provide a wedge effect. An important part of the present

invention is that the damping portion is engaged in the damping groove to provide a wedge effect, thereby generating a larger damping force. The amendment to claim 1 more clearly recites this aspect.

Neither of the cited references, either alone or in combination, teach or suggest a damping portion engaged in a damping groove so as to exert a damping force. As already stated by the Examiner, the Flower reference does not disclose a tapered damping groove. It is applicant's contention that the Jankovsky reference also fails to disclose the structure according to the present invention. The receiving member 20 of the Jankovsky reference is not engaged in the brake shoes 25 and 26, as illustrated in Fig. 6. The receiving member 20 contacts the inner surfaces of the brake shoes when it slides. When a projectile penetrates into the receiving member 20, the receiving member 20 is pressed against the brake shoes in order to exert a damping force. However, the receiving member is not engaged in the brake shoes to provide a wedge effect in order to generate a damping force.

Furthermore, Figs. 7 and 8 of Jankovsky show the brake shoes with inclined faces. The purpose of these inclined faces is to decrease the brake movement of the upper brake shoe 35 by decreasing the area between the break shoes. Therefore, the inclined faces completely differ from the tapered face formed on a damping groove or a damping portion of the present invention which taper at right angles to the axis of the damping groove and damping portion. Accordingly, it is respectfully requested that the rejection of claims 1-3 be withdrawn.

CONCLUSION

In view of the amendments to claim 1 made herein and the arguments presented above, it is submitted that the Examiner's rejections have been overcome and should be withdrawn. The application should now be in condition for allowance.

Should any changes to the claims and/or specification be deemed necessary to place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned to discuss the same.

This Response is being timely filed. In the event that any other extensions and/or fees are required for the entry of this Amendment, the Patent and Trademark Office is specifically authorized to charge such fee to Deposit Account No. 50-0518 in the name of Steinberg & Raskin, P.C. An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,
STEINBERG & RASKIN, P.C.

By: 
Noam R. Pollack
Reg. No. 56,829

Steinberg & Raskin, P.C.
1140 Avenue of the Americas
New York, New York 10036
(212) 768-3800